



S/N 09/016,707

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Meyer Examiner: H. Xu
Serial No.: 09/016,707 Group Art Unit: 1774
Filed: January 30, 1998 Docket No.: 13132.3US01
Title: SPHEROIDAL SLAG AND FLY ASH PARTICLES AND APPARATUS
AND PROCESS FOR PRODUCING SAME

CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited in the United States Postal Service, as first class mail, in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on August 18, 2000.

By: Kristine A. Wach
Name: Kristine A. Wach

DECLARATION OF PAUL W. MEYER

I, Paul W. Meyer, declare as follows:

1. I am the inventor of the inventions described and claimed in U.S. Patent Application Serial No. 09/016,707. I have a bachelor's degree in Engineering and Applied Science from the California Institute of Technology and a Ph.D. in Biophysics, also from the California Institute of Technology. I am a professional engineer licensed by the State of Minnesota. I am currently employed as an engineer for Black Diamond Granules, Inc., 499 Cottage Grove Drive, Woodbury, MN 55129.

2. I obtained a 1 pound sample of waste shot from mineral wool manufacturer, Sloss Industries Corporation, 3500 35th Ave. N., P.O. Box 5327, Birmingham, AL 35207. This waste shot is waste from the manufacture of mineral wool. The sample of waste shot that I received was screened by the manufacturer to pass a #10 sieve. The non-sieved waste shot is marketed as "slag wool aggregate".

3. A 10.1 gram portion of the shot was dried in a microwave oven on "high" for 2 minutes. The sample weight decreased about 3% during the first minute and less than 1% during the second minute.

4. I delivered the shot particles to Materials Evaluation and Engineering, Inc. of Plymouth, MN for preparing SEM photographs under my supervision. A small amount of the dried shot was sprinkled onto a double-sided adhesive, conductive carbon tape positioned on a 2" diameter aluminum stub. The stub was inverted and tapped to remove any non-adhering particles. The adhered shot particles were photographed using a JEOL JSM 5800-LV scanning electron microscope using backscatter electron imaging and low vacuum at a voltage of 30 kV, a working distance of 20 mm, and a magnification of 25X. Copies of the photographs are attached as Exhibits A-E.

5. I do hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of the Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: August 16, 2000

Paul W. Meyer
Paul W. Meyer

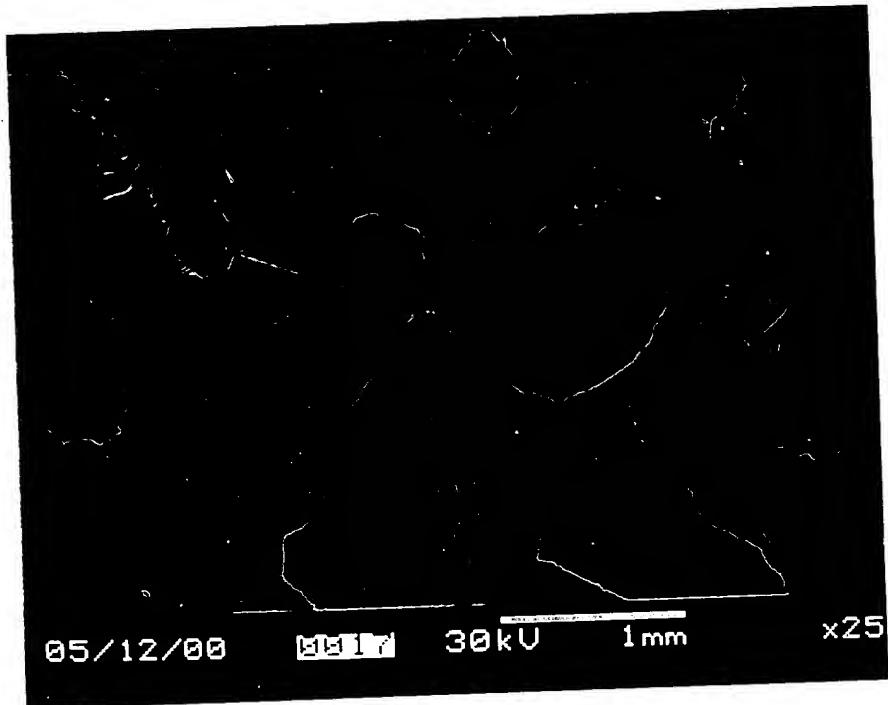


EXHIBIT A



EXHIBIT B

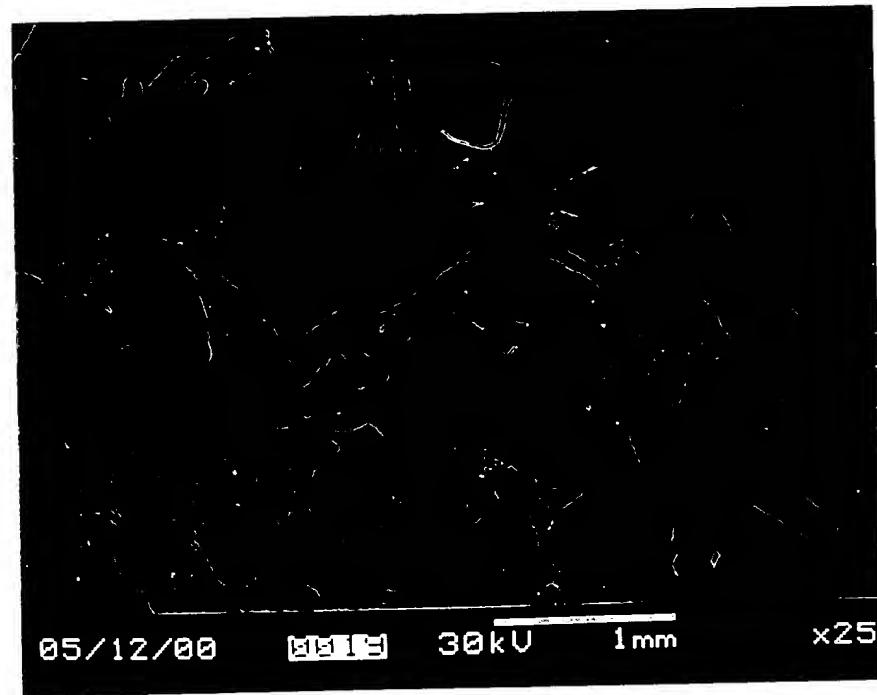


EXHIBIT C

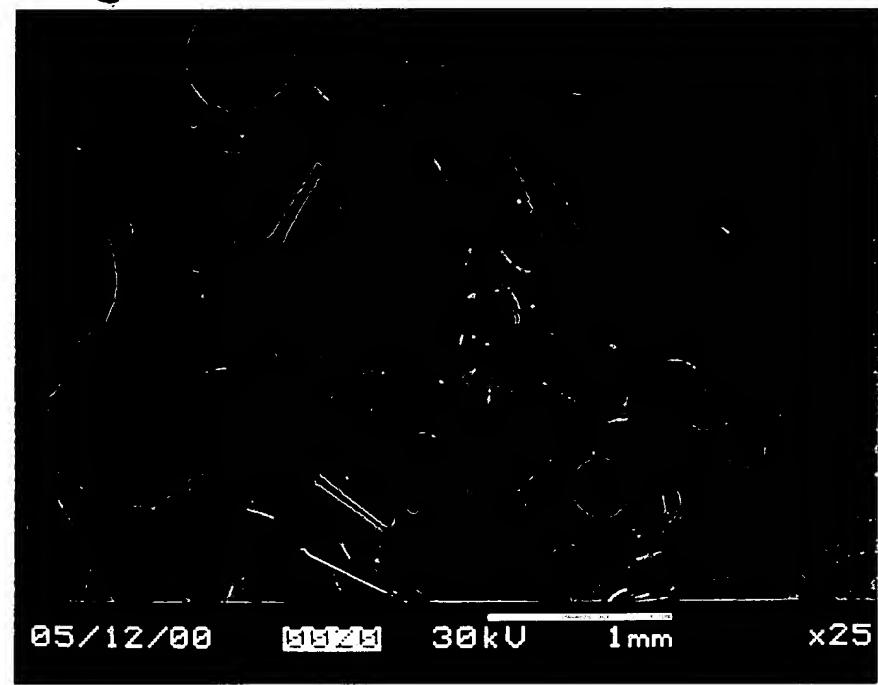
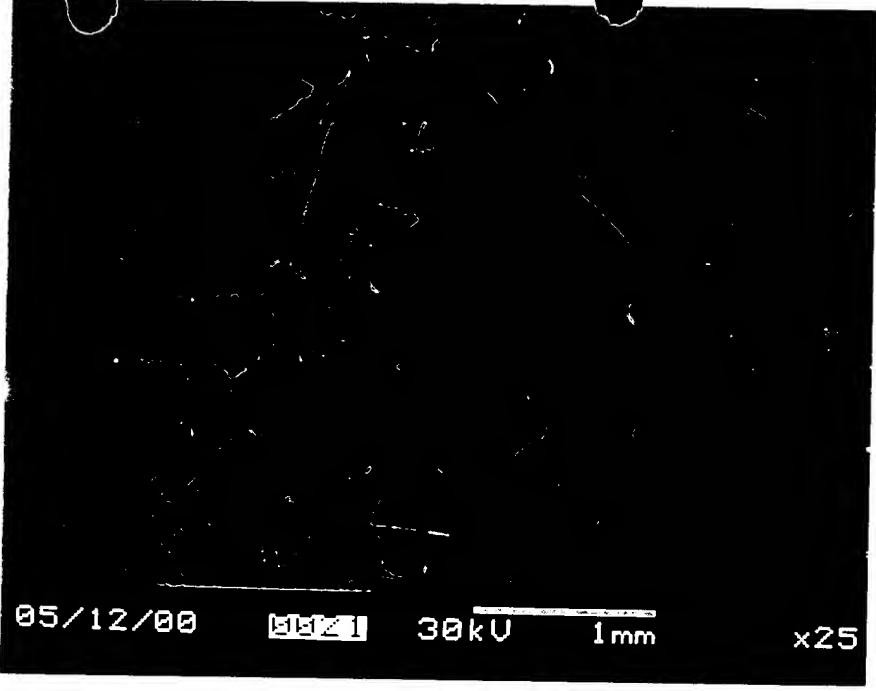


EXHIBIT D



05/12/00 30kV 1mm x25

EXHIBIT E